

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference CAMU - PWO - 002	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2005/000800	International filing date (day/month/year) 11/01/2005	(Earliest) Priority Date (day/month/year) 16/01/2004
Applicant CARNEGIE MELLON UNIVERSITY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☒ Certain claims were found unsearchable (See Box II).

3. ☒ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☒ none of the figures is to be published with the abstract.

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 32-44 and 57-64 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see annex

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claim: 1

Method for labelling a cell with a fluorocarbon imaging reagent

2. claim: 21

An imaging reagent with specific fluorocarbons

3. claim: 26

Linear fluorocarbon derivatized with a detection moiety or a hydrophylic moiety or a targeting moiety or a cellular uptake moiety

4. claim: 30

An emulsion comprising a perfluoroether with a particle size ranging from 10 to 500 nm

5. claim: 32

A method for detecting a cell in a subject comprising administering a cell labelled with a fluorocarbon imaging reagent and examining by NMR technique

A. CLASSIFICATION OF SUBJECT MATTER
A61K49/10 A61K49/18 A61K51/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94/21303 A (ALLIANCE PHARMACEUTICAL CORP) 29 September 1994 (1994-09-29)	1-20
Y	page 3 - page 4; claims 1-18	13,15-17
X	FORSTROM L A ET AL: "18F-FDG labelling of human leukocytes." NUCLEAR MEDICINE COMMUNICATIONS. JUL 2000, vol. 21, no. 7, July 2000 (2000-07), pages 691-694, XP009050708 ISSN: 0143-3636 the whole document	1
Y	US 5 114 703 A (WOLF ET AL) 19 May 1992 (1992-05-19) the whole document	1-20

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

16 January 2006

Date of mailing of the international search report

23. 01. 2006

Name and mailing address of the ISA

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ESTANOL, I

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 307 087 A (LONG, DAVID M., JR; ALLIANCE PHARMACEUTICAL CORP) 15 March 1989 (1989-03-15) the whole document	1-20
Y	----- GB 2 242 191 A (ROBERT CHARLES * HIDER; ERNST REINHARD * HUEHNS; JOHN BROOKE * PORTER) 25 September 1991 (1991-09-25) page 5	1
Y	----- US 4 558 279 A (ACKERMAN ET AL) 10 December 1985 (1985-12-10) claim 23	1,17
Y	----- US 4 996 041 A (ARAI ET AL) 26 February 1991 (1991-02-26) column 5 - column 8	1,13
Y	----- DE 42 03 254 A1 (MAX-PLANCK-GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN EV, 3400 GOE) 12 August 1993 (1993-08-12) column 2 - column 4	1
Y	----- SANCHEZ V ET AL: "Highly concentrated 1,2-bis(perfluoroalkyl)iodoethene emulsions for use as contrast agents for diagnosis" JOURNAL OF FLUORINE CHEMISTRY, ELSEVIER SEQUOIA. LAUSANNE, CH, vol. 73, no. 2, August 1995 (1995-08), pages 259-264, XP004020548 ISSN: 0022-1139 the whole document	1
A	----- US 4 783 401 A (HORAN ET AL) 8 November 1988 (1988-11-08) the whole document	1-20
A	----- US 4 570 004 A (LAGOW ET AL) 11 February 1986 (1986-02-11) the whole document	1-20

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inventor's application No
PCT/US2005/000800

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Int. ti application No
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		IL 84278 A	15-07-1992
		JP 2011020 C	02-02-1996
		JP 7037978 B	26-04-1995
		JP 63122954 A	26-05-1988
		KR 9700783 B1	20-01-1997
		PH 23564 A	25-08-1989
		PT 86028 A	01-11-1987
		ZA 8708157 A	31-08-1988

US 4570004	A	11-02-1986	NONE
